

THAT WHICH IS CLAIMED IS:

1. A system for transmitting multiple radio frequency and telephony signals across a single cable, the system comprising:
- multiple input ports for receiving a plurality of radio frequency signals;
 - signal processing means operable with the input ports for processing the plurality of radio frequency signals for operation with a switch;
 - a plurality of switches wherein each one switch of the plurality of switches is operable with the plurality of processed radio frequency signals for providing a selected signal output therefrom in response to a control signal;
 - a telephony device for receiving a telephony signal, the telephony device electrically connected to a single conductor of the first end of the single cable for transmitting the telephony signal therethrough;
 - a master controller operable with the plurality of switches for providing the control signal thereto, the master controller operable with the telephony device for receiving telephony information therefrom;
 - a single cable having opposing first and second ends for transmitting radio frequency signals therebetween, the first end electrically connected with the one switch for receiving the selected radio frequency signal output;
 - a triplexer having an input port electrically connected to the second end of the single cable for receiving the radio frequency and telephony signals from the single line and providing separate satellite, cable television and telephony output signals to a receiver, the triplexer further having a controller for communicating with the master controller through the single conductor wire and an interface device for connection to the receiver; and
 - a baseband communications system operable with the controllers and the telephony device for modifying the telephony signal as characterized by the control signal for transmitting a modified telephony signal through a single conductor wire of the single cable.

2. A system according to claim 1, wherein the plurality of radio frequency signals includes satellite and cable television signals.

3. A system according to claim 2, further comprising a cable modem for upstream signal transmission to a broadcast provider.

4. A system according to claim 1, wherein the signal processing means comprise amplifying and filtering of the radio frequency signals.

5. A system according to claim 1, further comprising a coupling circuit for distributed coupling of the plurality of radio frequency signals to the plurality of switches.

6. A system according to claim 1, wherein the telephony device includes a data access arrangement device operable with an outside telephone line for receiving the telephony signal and providing an audio input and audio output signal connection to the single conductor wire.

7. A system according to claim 1, wherein the master controller comprises a microprocessor.

8. A system according to claim 1, wherein the single cable comprises a coaxial cable having an inner conductor, and wherein the inner conductor includes the single conductor wire.

9. A system according to claim 1, wherein the interface device of the triplexer comprises a subscriber line interface circuit for transmitting a telephony signal to a receiver.

10. A system according to claim 1, wherein the baseband communications system comprises first and second modifying devices comprising means for modifying

the telephony signal based on a digital control signal from the controllers for providing a modified audio signal characterized by a digital waveform and full wave rectifying
5 means for removing the digital waveform characterization, thus providing the an analog voltage signal as an audio signal at the conductor ends, characteristic of the first audio input signal, and wherein the first modifying device is operable with the master controller and the second modifying device is operable the controller of the triplexer.

11. A system for transmitting multiple radio frequency and telephony signals across a single cable, the system comprising:

a switch for receiving a plurality of radio frequency signals and providing a selected signal output to a coaxial cable in response to a control signal;
a telephony device for receiving a telephony signal;
a controller operable with the switch for providing the selected signal output and operable with the telephony device for receiving telephony information therefrom; and
a baseband communications system operable with the controller and the telephony device for modifying the telephony signal as characterized by a control signal for transmitting a modified telephony signal through a single center conductor wire of the coaxial cable .

12. A system according to claim 11, further comprising a triplexer for connection to the single cable for simultaneously receiving the modified telephony signal and the selected radio frequency signal therefrom and providing separate satellite, cable television and telephony signals to the receiver, the triplexer further
5 having a controller communicating with the controller through the single conductor wire and an interface device for connection to a receiver.

13. A system according to claim 12, wherein the triplexer comprises a telephony output port, a satellite signal output port, and a terrestrial cable output port for connection to a receiver.

14. A system according to claim 12, wherein the interface device comprises a subscriber line interface circuit.

15. A system according to claim 11, wherein the telephony device includes a data access arrangement device operable with an outside telephone line for receiving the telephony signal and providing an audio input and audio output signal connection to the single center conductor wire.

16. A system according to claim 11, wherein the baseband communications system comprises means for modifying the telephony signal based on a digital control signal from the controller for providing a modified audio signal characterized by a digital waveform and full wave rectifying means for removing the digital waveform characterization, thus providing the an analog voltage signal as an audio signal characteristic of the telephony signal.

17. A method for transmitting multiple radio frequency and telephony signals across a single cable, the method comprising:

receiving a plurality of radio frequency signals;

processing the radio frequency signals for transmitting to a switch;

selecting one radio frequency signal from the plurality of radio frequency signals for transmission through a single cable;

receiving a telephony signal;

modifying the telephony signal as characterized by a digital control signal for transmitting a modified telephony signal through a single conductor wire of the single cable;

receiving the selected radio frequency signal and the modified telephony signal;

processing the modified telephony signal for reforming the telephony signal from the modified telephony signal; and

transmitting the telephony signal and the selected radio frequency signal to a receiver.

18. A method according to claim 17, wherein the plurality of radio frequency signals includes satellite and cable television signals.

19. A method according to claim 17, wherein the radio frequency signal processing comprises amplifying and filtering of the radio frequency signals.

20. A method according to claim 17, wherein modifying the telephony signal comprises:

providing a first analog voltage signal representing the telephony signal;

providing a first digital waveform characterized by a high voltage level and a low voltage level;

modifying the first analog voltage signal to a preselected voltage level based on the first digital waveform for providing a first modified audio signal characterized by the first digital waveform high and low voltage levels;

transmitting the first modified audio signal through the single conductor from a conductor first end to a conductor second end;

receiving the first modified audio signal at the conductor second end;

full wave rectifying the first modified audio signal for removing the first digital waveform characterization, thus providing the first analog voltage signal as a first audio output signal at the conductor second end characteristic of the telephony signal;

15 providing a second analog voltage signal representing a second telephony signal;

providing a second digital waveform characterized by a high voltage level and a low voltage level;

20 modifying the second analog voltage signal to a preselected voltage level based on the second digital waveform for providing a second modified audio signal characterized by the second digital waveform high and low voltage levels;

transmitting the second modified audio signal through the single conductor from a conductor second end to the conductor first end;

25

receiving the second modified audio signal at the conductor first end; and
full wave rectifying the second modified audio signal for removing the second
digital waveform characterization, thus providing the second analog voltage signal as a
second audio output signal at the conductor first end characteristic of the second
telephony signal.